ing the surface of the water partially unprotected. This shows that the surface tension of the oily liquid is much less than that of the water. If aqueous vapor should begin to condense upon a minute drop of oil as a nucleus, then, at some time in the history of the growth of the drop, the oil should escape from the center and become the surface film of the drop and retard its future growth as a drop of water. This whole subject lends itself to a beautiful series of experiments, such as might be carried on by the students of physics in the well equipped laboratories that are now so common in our universities and agricultural experiment stations.

NEW JERSEY.

A heavy thunderstorm and a disastrous stroke of lightning by which 5 men were killed and 3 were seriously injured occurred on Tuesday afternoon, July 19, near Boonton. It seems that the party took refuge under a tree on the banks of the Rockaway River. The Boonton Bulletin remarks:

Notwithstanding the many warnings about seeking shelter under trees during thunderstorms, many persons when caught out in a storm run to the trees. We regret to say that this fearful catastrophe is another illustration of the thoughtlessness of people under such circumstances.

Is not this too severe an arraignment? Doubtless the unfortunate men had heard that trees were dangerous but where else could they flee from the the storm? If they had sat upright in their boat anchored on the river, they would, like the poor horse in Dakota, have been as it were a projection above the plane of the water surface and, therefore, especially liable to be struck. Had they walked farther up the river banks beyond the trees, with umbrellas over their heads and fishing poles in their hands, they would also have acted as lightning rods to attract the flash. Had they hastily erected a genuine lightning rod and then retreated a few feet from it, they might possibly have been safe. But except for this, we know of no way by which they could have insured their safety. We can not attribute their deaths to their own thoughtlessness; they ran from one danger only to run into another, and it is not for us to say that the very slight chance of being killed by lightning—which hangs over all of us at all times—need enter into consideration when we are trying to escape the greater peril of high wind, heavy rains, and hail.

NEW YORK.

All section reports for the month of July pay especial attention to the amount of damage by lightning which subject will be summed up exhaustively in the Annual Report of the Chief of the Weather Bureau. As the July report for New York could not be published in time for consultation by the Editor, Mr. R. G. Allen has kindly sent, in advance, the following item with regard to loss by lightning:

Voluntary observers and crop reporters in this section report that the thunderstorms in the different parts of this State, during July, were more violent than ever before known by the oldest citizens. They occurred on the 3d, 4th, 9th, 11th, 18th, 19th, 20th, 21st, 23d, 24th, 25th, 26th, 28th, and 29th. The amount of loss was unprecedented. The following is a brief summary of casualties:

Seventeen (17) houses struck, total loss, $1,138; thirty-seven (37) barns burned, total loss, $44,536; value of stock killed by lightning amounted to $2,190; four (4) churches were struck, and were injured to the extent of $600; a large planing mill at Moira was burned with a loss of $12,000; the Stephenson Brewing Company at Oswego was struck by lightning and burned, the loss being $150,000; sum of all losses reported to the Ithaca office was $210,464. It is a noticeable fact that nearly all of the barns burned contained grain or hay, or both.

The distribution of this destruction on different days of the month was as follows:

| Date. | No. of localities. | Value of property destroyed. |
|---|---|---|
| July 3... | 4 | $3,450 |
| 4... | 1 | 1,000 |
| 11... | 1 | 130 |
| 18... | 6 | 17,611 |
| 19... | 9 | 158,770 |
| 20... | 1 | 100 |
| 21... | 5 | 1,380 |
| 23... | 14 | 15,038 |
| 24... | 1 | 250 |
| 25... | 9 | 6,860 |
| 26... | 3 | 3,670 |
| 28... | 5 | 2,080 |
| 29... | 2 | 125 |
| Total.. | ..... ..... | $210,464 |

## BRIGHT METEORS.

The Editor has recently received glowing accounts of something extraordinary in the way of aerolites or great meteors that are said to have fallen "in the back country up river," in June, in West Virginia. Parties are said to be out searching for some of the pieces, but the Editor fears that they will never be found. When a great meteor falls it is apt to be seen for a few seconds over a wide extent of country. This particular meteor was observed near Findlay, Ohio (N. 41° 3′; W. 83° 40′), and appeared to fall somewhere eastward. It is also reported from Point Pleasant, W. Va., on the Ohio River (N. 38° 50′; W. 82° 10′), where it appeared to fall somewhere back of Hawksnest; that is to say, still somewhat to the east. If these observations are reliable they simply point to the fact that a meteor passed eastward through the atmosphere on June 3, high enough up to be seen from distant points; but the detailed account about its actual fall to the ground must be a matter of imagination. Undoubtedly some meteors do reach the ground, but it is best not to describe such a fall until after the pieces have been found. Most of the bright meteors that seem to strike the ground beyond the distant horizon have actually been hundreds of miles distant, and are consumed in the air without striking the ground.

## RECENT EARTHQUAKES.

No disturbances were reported during July from the seismoscopes of Professor Morley, Cleveland, Ohio, and Professor Marvin, Washington, D. C.

*July* 21.—Rivas, Nicaragua, slight shock at 11:55 p. m.

*July* 23–24.—Chile: During the night at Conception, and at Talcahuano, 8 miles distant, a violent shock lasting a minute and destroying many houses.

*July* 25.—New Hampshire: Concord and Canterbury, about 6 p. m.

# METEOROLOGICAL TABLES AND CHARTS.

By A. J. HENRY, Chief of Division of Records and Meteorological Data.

Table I gives, for about 130 Weather Bureau stations making two observations daily and for about 20 others making only one observation, the data ordinarily needed for climatological studies, viz, the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and the departures from normals in the case of pressure, temperature, and precipitation, the total depth of snowfall, and the mean wet-bulb temperatures. The altitudes of the instruments above ground are also given.

Table II gives, for about 2,700 stations occupied by voluntary observers, the highest maximum and the lowest minimum